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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/585,771

07/12/2006

Josef Beller

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EXAMINER

PHAN, HANH

ART UNIT

PAPER NUMBER

2613

NOTIFICATION DATE

DELIVERY MODE

07/22/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

IPOPS.LEGAL@agilent.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/585,771	<b>Applicant(s)</b> BELLER, JOSEF	
	<b>Examiner</b> Hanh Phan	<b>Art Unit</b> 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because **the blank boxes 101, 102, 103, 104, 201 and 203 in Figures 1-3 are not labeled**. The blank boxes 101, 102, 103, 104, 201 and 203 in Figures 1-3 should be labeled. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. In Claim 12, line 1, the phrase "The apparatus of claim 12" should be changed to --The apparatus of claim 7--.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "**the transmitter driver**" in lines 3 and 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "**the optoelectric converter**" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "**the receiver**" in line 4. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 1-3 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maslowski et al (US Patent No. 4,070,118 cited by applicant) in view of Franck et al (US Patent No. 7,286,767).

Regarding claims 1 and 7, referring to Figure 2, Maslowski et al teaches a method of optoelectrical conversion, comprising:

providing a first electrical signal (i.e., electrical signal 13, Fig. 2) to an electrical directional element (i.e., separating filter 11, Fig. 2), the electrical directional element (separating filter 11, Fig. 2) directing the first electrical to an optoelectric converter (i.e., semiconductor element 8, Fig. 2) (col. 3, lines 29-67 and col. 4, lines 1-3);

the optoelectric converter (semiconductor element 8, Fig. 2) converting the first electrical signal into an optical signal (i.e., optical signal 5, Fig. 2) and providing the optical signal to a DUT (i.e., fiber 2, Fig. 2);

the optoelectric converter (semiconductor element 8, Fig. 2) receiving and converting a reflected optical signal (i.e., reflected optical signal 7, Fig. 2) reflected by the DUT (fiber 2, Fig. 2) back into a second electrical signal (i.e., col. 3, lines 29-67 and col. 4, lines 1-3); and

the electrical directional element (separating filter 11, Fig. 2) for directing the second electrical signal to a receiver (i.e., indicator device 12, Fig. 2)(col. 3, lines 29-67 and col. 4, lines 1-3).

Maslowski et al differs from claims 1 and 7 in that he fails to specifically teach the electrical direction element comprises a switch. Franck et al, from the same field of endeavor likewise teaches a method optoelectric conversion (Figure 3). Franck et al

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further teaches the electrical direction element comprising a switch (i.e., switch 360, Fig. 3)(col. 3, lines 52-67, col. 4, lines 1-67, col. 5, lines 1-67 and col. 6, lines 1-45). Based on this teaching, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the electrical direction element comprising a switch as taught by Franck et al in the system of Maslowski et al. One of ordinary skill in the art would have been motivated to do this since allowing simplifying the circuitry, reducing space, size and cost of the whole system.

Regarding claim 2, the combination of Maslowski et al and Franck et al teaches further comprising: the optoelectric converter converting the first electrical signal into an optical signal by emitting light caused by an electrical excitation of the optoelectric converter by the first electrical signal (i.e., Fig. 2 of Maslowski et al and Fig. 3 of Franck et al).

Regarding claim 3, the combination of Maslowski et al and Franck et al teaches further comprising: the optoelectric converter converting the reflected optical signal back into a second electrical signal by generating an electrical signal caused by an optical excitation of the optoelectric converter by the optical signal (i.e., Fig. 2 of Maslowski et al, col. 3, lines 35-67 and col. 4, lines 1-3, and Fig. 3 of Franck et al).

Regarding claim 8, the combination of Maslowski et al and Franck et al teaches wherein the transmitter driver comprises a laser driver (i.e., Fig. 3 of Franck et al).

Regarding claim 9, the combination of Maslowski et al and Franck et al teaches wherein the electrical directional element comprises an electrical directional coupling

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device (i.e., Fig. 2 of Maslowski et al, col. 3, lines 35-67 and col. 4, lines 1-3, and Fig. 3 of Franck et al).

Regarding claim 10, the combination of Maslowski et al and Franck et al teaches wherein the optoelectric converter comprises a laser diode and/or a light emitting diode (i.e., Fig. 2 of Maslowski et al, col. 3, lines 35-67 and col. 4, lines 1-3, and Fig. 3 of Franck et al).

7. Claims 1-3 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maslowski et al (US Patent No. 4,070,118 cited by applicant) in view of Franck et al (US Patent No. 7,286,767) and further in view of Gentile (US Patent No. 4,875,772).

Regarding claims 4 and 12, the combination of Maslowski et al and Franck et al differs from claims 4 and 12 in that it fails to specifically teach introducing a time delay between providing the optical signal to the DUT and receiving the reflected optical signal from the DUT. Gentile et al teaches introducing a time delay between providing the optical signal to the DUT and receiving the reflected optical signal from the DUT (i.e., Figures 1-10, from col. 2, line 46 to col. 6, line 5 and see abstract section). Based on this teaching, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the introducing a time delay between providing the optical signal to the DUT and receiving the reflected optical signal from the DUT as taught by Gentile in the system of the combination of Maslowski et al and Franck et al. One of ordinary skill in the art would have been motivated to do this since allowing identification of the cable in which a fault has occurred.

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Regarding claims 5, 11 and 13, the combination of Maslowski et al, Franck et al and Gentile teaches performing an OTDR measurement (i.e., Figs. 1-10 of Gentile).

Regarding claim 6, the combination of Maslowski et al, Franck et al and Gentile teaches a software program or product, preferably stored on a data carrier, for executing when run on a data processing system such as a computer (i.e., Figs. 1-10 of Gentile).

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cohen et al (US Patent No. 5,285,305) discloses optical transmission system.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (571)272-3035.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye, can be reached on (571)272-3078. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

/Hanh Phan/

Primary Examiner, Art Unit 2613

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